

INJECTION MOLDING APPARATUS HAVING AN
ELONGATED NOZZLE INCORPORATING MULTIPLE
NOZZLE BODIES IN TANDEM

ABSTRACT OF THE DISCLOSURE

The present invention generally relates to an injection molding apparatus, comprising a manifold including a plurality of manifold channels and a plurality of nozzles. Each of the nozzles defines a nozzle channel in fluid communication with one of the manifold channels and including a plurality of nozzle bodies coupled in tandem by a removable and secure connection. The nozzle bodies include at least a upstream nozzle body and a downstream nozzle body. The upstream nozzle body has an upstream end adjacent said manifold channel, and the downstream nozzle body has a downstream end adjacent a mold plate. A removable nozzle tip is retained in a downstream end of each downstream nozzle body. The nozzles also include a plurality of heaters, wherein at least one heater is embedded into each nozzle body.